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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|------------------------------|-------------|----------------------|---------------------|------------------|
| 09/758,625 | 01/11/2001 | Ralph H. Echols | 2000-IP-001727 | 8980 |
| 20558 | 7590 | 10/24/2003 | EXAMINER | |
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| SUITE 230 | | | | |
| PLANO, TX 75074 | | | | |
| | | | | 1723 |
| DATE MAILED: 10/24/2003 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------|------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/758,625 | ECHOES ET AL. | |
| | Examiner Mr. Terry K. Cecil | Art Unit 1723 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 07 August 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 5,6,8,10,15 and 84-97 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 5,6,8,10,15 and 84-97 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Double Patenting

1. Applicant is advised that should claim 92 be found allowable, claim 93 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. Applicant is also advised that should claim 5 be found allowable, claim 87 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Objections

2. Claim 8 is objected to because of the following informalities: in line 12, "inflatable" should be "inflatably". Appropriate correction is required.

Claim Rejections - 35 USC ' 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 10, 15, 84, 86, 89 and 91-97 are rejected under 35 U.S.C. 102(e) as being anticipated by Brockman (U.S. 6,505,682 B2). Brockman discloses a casing 21 having a communication infrastructure embedded therein (col. 2, lines 38-39). As discussed in col. 2, line 66 to col. 3, line 8, Casing 21 is formed from a tubing 40, the communication infrastructure (that includes lines) and an encapsulant 33. The encapsulant encases both the infrastructure and the tubing 40. Since the encapsulant is bonded to the outer surface of the tubing (e.g. by an extrusion process, col. 3, lines 50-55), the casing 21 forms the innermost perforated tubular member [as in claims 10 and 15]. Casing 21 is perforated at 36 and also at 30 and the communication infrastructure can include sensors 38 [as in claims 10 and 91] which are measuring pressure [as in claims 92-93]. The sidewall material can be plastic (as non-metallic material) or can be a composite (col. 3, lines 4-6) [as in claims 86 and 89]. As shown in e.g. figure 6, the electrical lines extend longitudinally [as in claim 84]. Brockman also discloses an actuator (parts of controllers 50) for actuating the pump or valves 34 [as in claim 94], both of which control flow [as in claim 95]. The lines are e.g. electrical lines for supplying power to equipment in the well bore and also monitoring lines for detecting the pressure in the well bore.

5. Claims 10, 15, 84, and 91-97, ... are rejected under 35 U.S.C. 102(b) as being anticipated by Curlett (U.S. 4,683,944). Curlett discloses a tubular conduit for either drilling or production in a well bore (col. 21, lines 51-58). The tubular casing 366 includes well screen 408 and embedded hydraulic lines 372 for delivering downhole chemicals and also line 374 for elongated electrical lines 376 communicating with downhole sensors ,e.g. pressure sensors (figures 24-28)

[as in claims 10, 15 and 84, 91-93, 96-97]. Curlett also discloses flow control valves that are solenoid actuated in communication with the lines [as in claims 94-95].

Claim Rejections - 35 USC ' 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

Determining the scope and contents of the prior art.
Ascertaining the differences between the prior art and the claims at issue.
Resolving the level of ordinary skill in the pertinent art.
Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 5 and 87 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brockman in view of Jones (U.S. 6,227,303 B1). Brockman has been expanded above and teaches flow passages.

Brockman does not teach a generally tubular protective shield lining each of the flow passages. However, Jones teaches tubular insert shields 20a lining each the flow passages [as in claims 5 and 87]. It is considered that it would have been obvious to one ordinarily skilled in the art at the

time of the invention to have the shields of Jones in the invention of Brockman, since Jones teaches the benefit of preventing erosion (col. 5).

8. Claims 6 and 88 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brockman in view of Jones and in further view of Swearingen (U.S. 5,392,862). Brockman in view of Jones has been expanded above and teaches shields having a fixed geometry and that extend entirely through the length of the flow passage in a sidewall material that is nonmetallic [as in claim 6].

Brockman, in view of Jones, does not teach a retainer disposed between the shield and the flow passage. Swearingen teaches a retainer 39 [as in claim 88] that is disposed between a nozzle insert and a flow passage. It is considered that it would have been obvious to one ordinarily skilled in the art at the time of the invention to have the retainer 39 of Swearingen between the shield insert and flow passage of Brockman, as modified by Jones, since Swearingen teaches the benefit of a retaining means for an inserted part in the casing of a well bore structure. As shown in e.g. figure 3 of Swearingen, upon modification the retainer would surround the entire outer side surface of its shield structure [as in claim 6]. It also would have been obvious to the skilled man for the retainer to have a degree of flexibleness in order effect insertion of the retainer into the flow passage thereof [as in claim 6].

9. Claims 8 and 90 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brockman, in view of Miller et al. (U.S. 3,099,318). Brockman has been expanded above.

Miller teaches an outer jacket 45 [as in claim 8] and an expandable member 43 (col. 7, lines 40-43) [as in claims 8 and 90]. It is considered that it would have been obvious to one ordinarily skilled in the art at the time of the invention to have the expandable member and the outer jacket of Miller in the invention of Brockman, since Miller teaches the benefit of preventing the accumulation of earth and sand particles in the well (col. 1, lines 14-19).

10. Claim 85 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brockman in view of Bearden et al. (U.S. 3,712,373). Claim 85 has the limitation of a filter media that is recessed in the sidewall. Bearden teaches an embodiment that includes layers of increasing finest, wherein the middle layer would be considered "recessed" in the side wall [as in claim 85]. It is considered that it would have been obvious to one ordinarily skilled in the art at the time of the invention to have the additional layers of Bearden in within the encapsulant of Brockman, since Bearden teaches the benefit of preventing surface plugging (col. 1, lines 53-55).

Response to Arguments

11. Applicant's arguments have been fully considered but are not persuasive because of the following reasons:

- Applicant's has argued (page 8) that Brockman does not disclose the line to be embedded in an innermost member; however, the examiner traverses for the following reasons:
 - (i) as explained above, the casing 21 includes parts 40, 33 and the lines bonded together—effectively forming the claimed innermost tubular member; and
 - (ii) merely naming the tubular member as "innermost" does not negate the presence of other members inwardly thereof: applicant's transitional term "comprising" renders the claim open-ended such that other elements can be present in a reference and still anticipate the claim.
- Applicant's arguments concerning Gano and Jordan are moot in view of new grounds of rejection.

Other Pertinent Art

12. Applicant may wish to consider the following germane reference before amending the claims (which teaches an embedded optical sensor in a well bore casing structure):

U.S. Patent **Jan. 23, 2001** **Sheet 9 of 9** **US 6,176,323 B1**

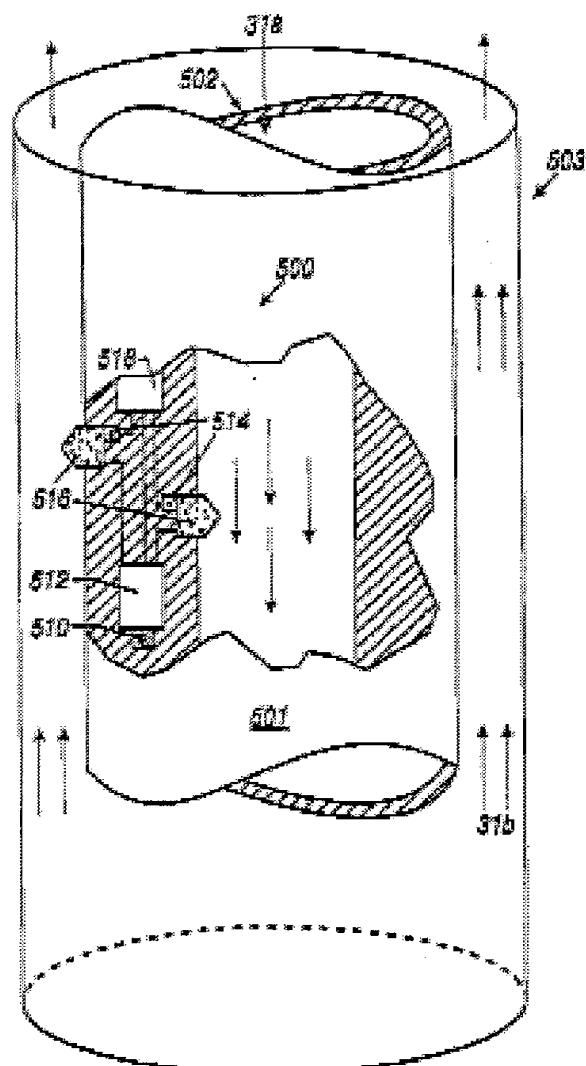


FIG. 11

13. Contact Information:

- Examiner Mr. Terry K. Cecil can be reached at (703)305-0079 for any inquiries concerning this communication or earlier communications from the examiner. Note that the examiner is on the increased flextime schedule but can normally be found in the office during the hours of 8:00a to 4:30p, on at least four days during the week M-F.
- The group receptionist can be reached at (703)308-0661 for inquiries of a general nature or those relating to the status of this or proceeding applications.
- Wanda Walker, the examiner's supervisor, can be reached at (703)308-0457 if attempts to reach the examiner are unsuccessful.
- The Fax number for this art unit for official faxes is 703-872-9306.



Mr. Terry K. Cecil
Examiner
Art Unit 1723

TKC
October 18, 2003